Causes for Gasoline & Diesel Price Increases in California

NOVEMBER MONTHLY UPDATE

California Energy Commission

November 3, 2003

CAUSES FOR GASOLINE AND DIESEL PRICE INCREASES IN CALIFORNIA

Summary

On March 13, 2003, Governor Davis asked the California Energy Commission (Energy Commission) to investigate the causes for the rapid rise in gasoline and diesel prices in February and March. Since submitting its March 28 report, the Energy Commission has provided monthly updates at the Governor's request. This report presents the Energy Commission's November 2003 update.

Gasoline prices continued to decline steadily in October compared to September. As of October 27, the average retail regular gasoline price was $1.74 per gallon, down 17 cents from $1.91 on September 29.

Reformulated gasoline production in California started October at relatively high levels compared to the summer months. As a result, gasoline inventories continued to grow from the extremely low levels reached in mid-August. However, several refinery problems during October cut into both production and inventory building, although stocks ended the month marginally higher than they were at the end of September.

Wholesale gasoline prices increased from the end of September and into October. Wholesale regular gasoline prices on the Los Angeles spot market that had settled at $0.85 per gallon during the week of September 22-26, climbed to $0.96 per gallon by September 30. October spot prices fluctuated around $1.00 per gallon for most of the month, but this modest increase in wholesale prices was not substantial enough to reverse the decline in retail gasoline prices.

Refinery problems eroded diesel inventories in California and elsewhere on the West Coast, pushing wholesale diesel prices slightly higher. This reversed the declining trend in retail prices reported in September. Average retail diesel prices in California increased slightly from $1.60 per gallon on September 29 to $1.63 on October 27.

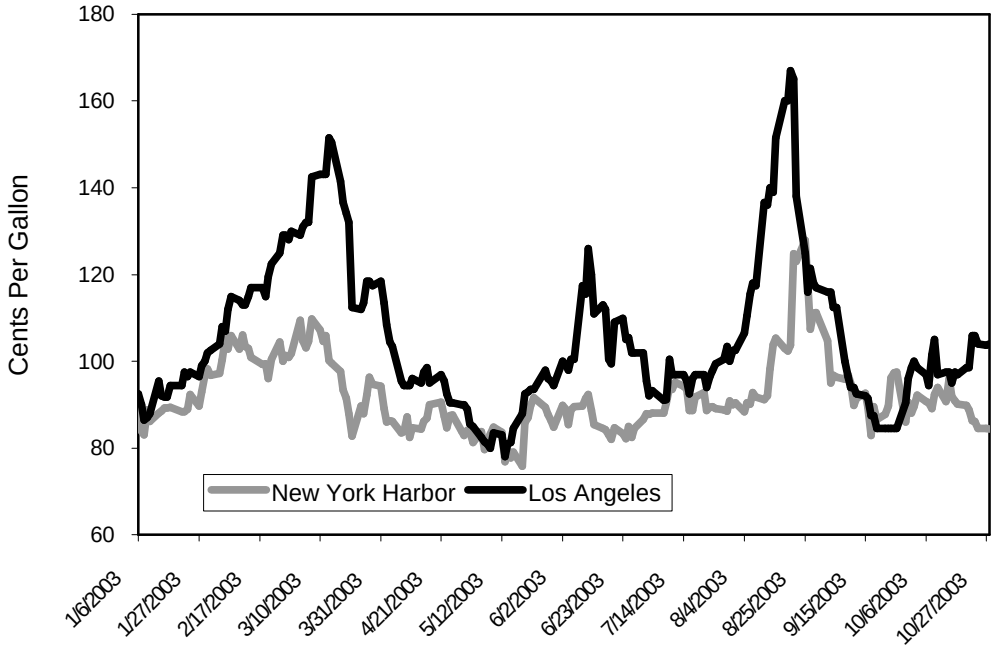
World crude oil prices increased steadily during early October, primarily on the announcement by the Organization of Petroleum Exporting Countries (OPEC) to cut oil production starting November 1. However, U.S. crude oil inventories continued to rebuild from the persistent low stocks held during most of the summer, eventually pulling prices back down. Alaska North Slope (ANS) crude oil prices that fell below $26 per barrel in September, climbed over $30 by mid-October. As of October 27, the price of ANS crude oil had fallen to $28.31 per barrel, compared to $27.95 on September 30.

Recent California Gasoline Prices

California retail gasoline prices in October continued to decline from the near-record highs experienced in August, despite a small rebound in wholesale prices during the month. After a summer of persistent difficulties, California refineries started October at relatively high production levels. As a result, California and West Coast gasoline inventories steadily increased through mid-month. Several refinery problems, however, combined with higher crude oil prices, caused wholesale prices in October to increase compared to late September.

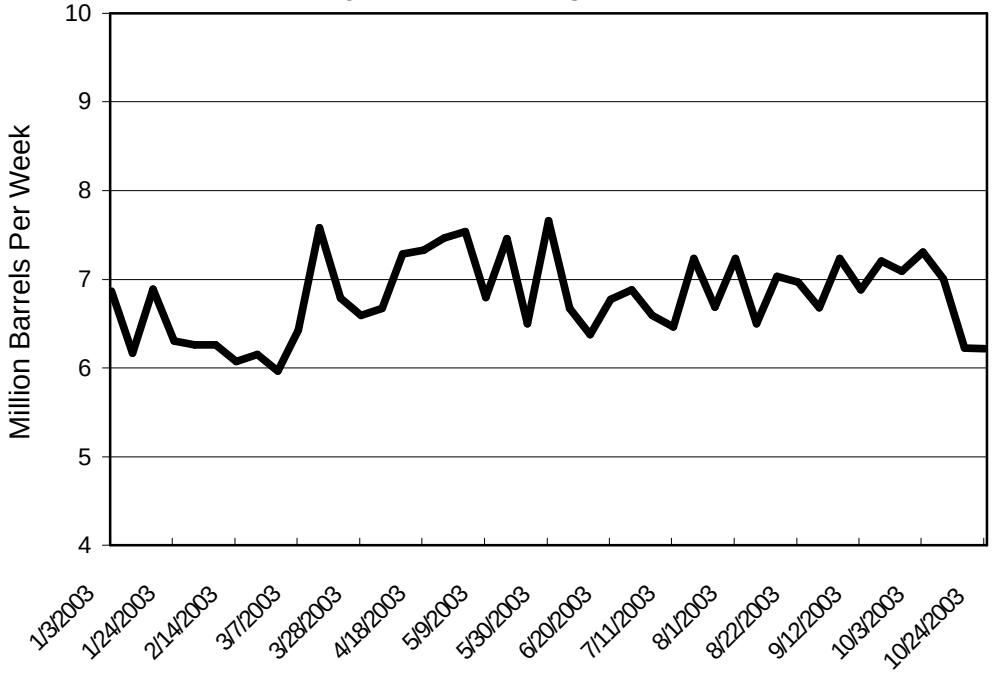
As shown in Figure 1, wholesale gasoline prices in California fell precipitously during September from the record levels of August[1]. With the resolution of major refinery and pipeline problems, gasoline production rebounded and inventories started to rebuild. Wholesale prices on the Los Angeles spot market decreased until the end of September, when rising crude oil prices and renewed volatility on commodity markets began to reverse this trend. Gasoline production in the state also declined during mid-October, which led to a further increase in wholesale prices. Regular-grade wholesale gasoline prices on the Los Angeles spot market reached $1.04 per gallon as of October 28, compared to $0.96 on September 30.

Figure 1
Wholesale Gasoline Prices - Los Angeles vs. New York
January 2003 - Present



Despite starting the month strong, California reformulated gasoline production during the month of October fell to a weekly average of 6.7 million barrels compared to average weekly production during September of 7.1 million barrels (see Figure 2). This was also lower than the weekly average of 6.8 million barrels during June through August[2]. The production declines for the last two weeks of October were attributable to several refinery problems in California.

Figure 2
California Reformulated Gasoline Production
January 3, 2003 through October 24, 2003



California refinery inventories of combined reformulated gasoline and blendstocks in October grew early in the month to 11.7 million barrels, but declined steadily through the end of the month (see Figure 3). This represents a substantial recovery from August, when inventories fell below 10 million barrels, but is well below the average of 13 million barrels for the first seven months of 2003. As of October 24, refinery stocks held just under 11 million barrels, an increase of only about 160,000 barrels from September 26. In contrast, total gasoline and blendstock inventories for refineries and terminals in the Petroleum Administration for Defense District 5 (PADD 5) region decreased more sharply in October. As of October 24, PADD 5 inventories were 27.7 million barrels, a decrease of 1.1 million barrels since September 26.

Figure 3
California Gasoline & Blendstock Inventories
January 3, 2003 through October 24, 2003

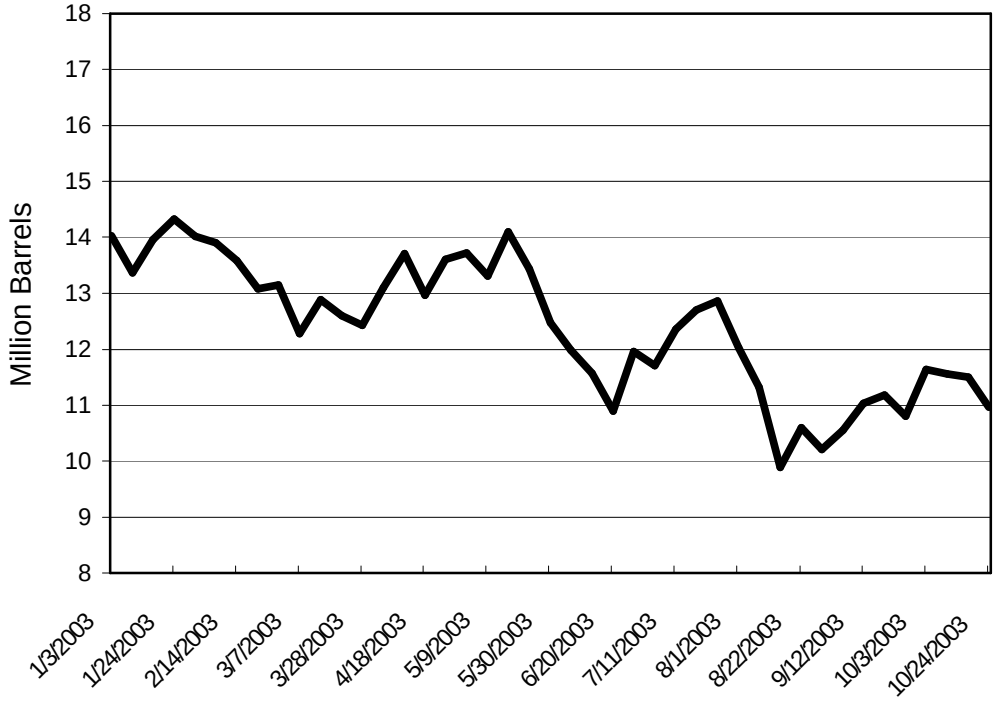
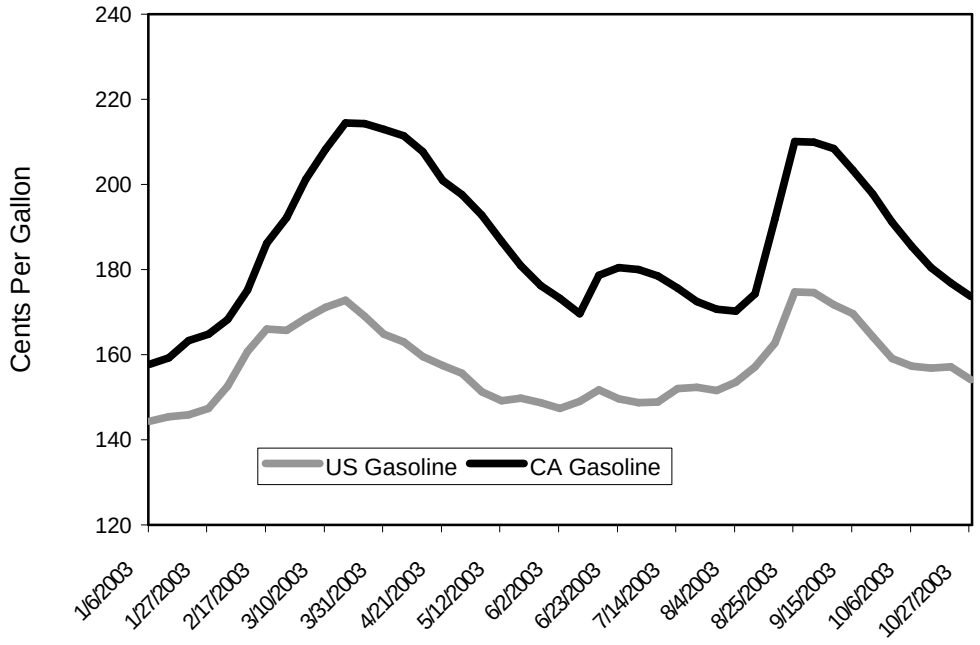


Figure 4 compares regular-grade retail gasoline prices in California with U.S. average gasoline prices through October 27, 2003. On August 25, retail gasoline prices in California rose to $2.10 per gallon, approaching the record of $2.15 set in March 2003. Prices steadily declined during September and October, continuing to fall even as wholesale prices rebounded slightly. As of October 27, the retail regular-grade gasoline price fell to $1.74 per gallon, compared to $1.91 on September 29.

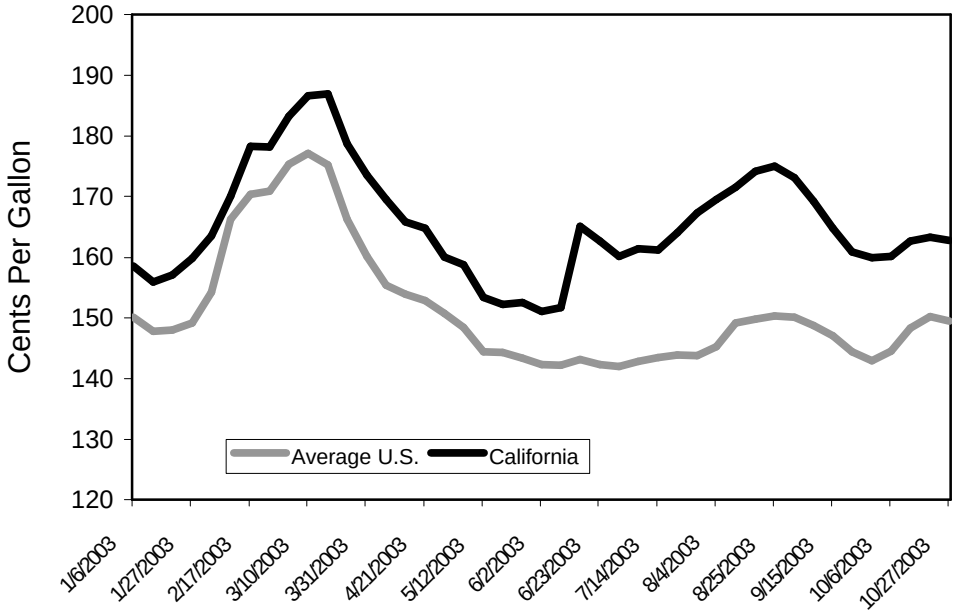
Figure 4
Retail Gasoline Prices - California vs. U.S. All Formulations
January 2003 - Present



Recent California Diesel Fuel Prices

Figure 5 compares retail diesel prices in California with the U.S. average price through October 27, 2003. California retail diesel prices have increased slightly from levels of late September, but the difference from average U.S. diesel prices has declined to 13 cents per gallon, the closest it has been since June. As of October 27, the California retail diesel price rose to $1.63 per gallon, compared to $1.60 on September 29.

Figure 5
Retail Diesel Prices - California vs. U.S.
January 2003 - Present



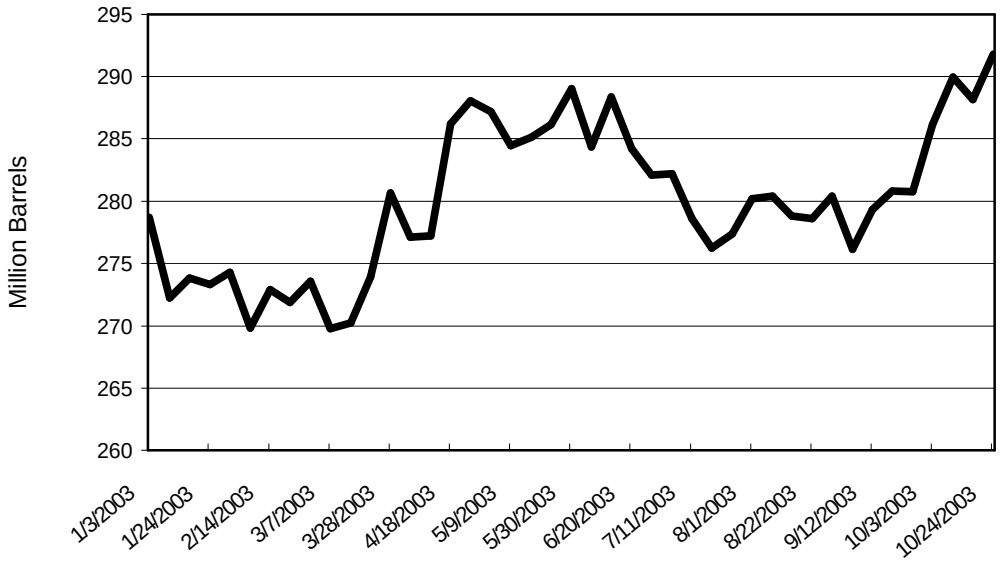
Production and inventory reductions of CARB diesel in California have contributed to the modest increase in prices over the month. Average weekly CARB diesel production during mid-October was the lowest since March. As a result, CARB diesel inventories in October fell to their lowest levels of the year. Similarly, PADD 5 low-sulfur diesel inventories continued falling from the relatively high levels of 10 million barrels reached on September 12, to 8.6 million barrels as of Oct 24. However, PADD 5 stocks still substantially exceed the low levels reached during July. Wholesale low-sulfur diesel prices in the Los Angeles spot market have climbed steadily during October. As of October 28, the spot price increased to $0.87 per gallon compared to $0.76 on September 30.

Crude Oil Prices

After declining briefly during the month of September, world crude oil prices in October returned to the relatively high levels that prevailed during June through August. The announcement on September 24 by the Organization of Petroleum Exporting Countries (OPEC) that member nations' crude oil production quotas would be cut by a total of 900,000 barrels per day effective November 1 has again lifted oil prices to the high end of OPEC's preferred price band of $22-28 per barrel. The president of Venezuela, an important OPEC member country, has even advocated raising the threshold of this price band to a minimum of $25 per barrel. At the same time, the International Energy Agency has projected an increase in average world petroleum demand for the fourth quarter of 2003 to over 80 million barrels per day, the first time ever above that level.

Despite these factors, U.S. crude oil inventories gradually rebuilt to their highest levels of the year during October (see Figure 6). The steady growth of Iraqi oil exports, high Russian oil production and numerous refinery maintenance turnarounds have contributed to the stock build. Inventories that had edged up to 281 million barrels by September 26, had reached 292 million barrels by October 24, a 1.6 percent increase over a year ago.

Figure 6
U.S. Crude Oil Inventories
January 3, 2003 through October 24, 2003



Crude oil prices have been an important contributing factor in the high gasoline and diesel prices experienced during 2003. Despite slowly building U.S. crude oil inventories, Alaska North Slope (ANS) crude oil prices increased through mid-October to over $30 per barrel, compared to lows of around $26 in September. However, toward the end of October prices eased somewhat. As of October 27, ANS crude oil traded at $28.31 per barrel, compared to $27.95 on September 30.

California Fuel Costs and Apparent Margins

Tables 1 and 2 display the price and cost components of a typical gallon of gasoline and diesel, respectively, averaged for October 2002, October 2003, and all years from 1997 to the present.[3] After netting out all taxes and crude oil costs, the bottom two rows of both tables display the implied refining and distribution margins.[4] "Refiner Costs and Profits" include all refiner production costs other than the cost of crude oil.[5] "Distribution Costs, Marketing Costs, and Profits" include costs associated with the distribution from terminals to stations and retailing of gasoline, including transportation and profits.[6]

Table 1
California Gasoline Cost Analysis ($/gallon)

	Branded Gasoline			Unbranded Gasoline		
	Oct 2003	**Oct 2002**	**1997 - Present**	**Oct 2003**	**Oct 2002**	**1997 - Present**
Retail Prices	1.79	1.53	1.50	1.79	1.53	1.50
Federal Excise Tax	0.16	0.18	0.18	0.18	0.18	0.18
State Excise Tax	0.18	0.18	0.18	0.18	0.18	0.18
State and Local Sales Tax	0.13	0.11	0.11	0.13	0.11	0.11
Crude Oil Cost	0.69	0.65	0.52	0.69	0.65	0.52
Refiner Costs and Profits	**0.42**	**0.44**	**0.40**	**0.37**	**0.27**	**0.35**
Distribution Costs, Marketing Costs, and Profits	**0.21**	**(0.03)**	**0.11**	**0.24**	**0.14**	**0.16**

Table 2
California Diesel Cost Analysis

	Branded Diesel			Unbranded Diesel		
	Oct 2003	**Oct 2002**	**1997 - Present**	**Oct 2003**	**Oct 2002**	**1997 – Present**
Retail Prices	1.62	1.56	1.46	1.62	1.56	1.46
Federal Excise Tax	0.24	0.24	0.24	0.24	0.24	0.24
State Excise Tax	0.18	0.18	0.18	0.18	0.18	0.18
State and Local Sales Tax	0.11	0.10	0.09	0.11	0.10	0.09
Crude Oil Cost	0.69	0.65	0.52	0.69	0.65	0.52
Refinery Costs and Profits	**0.25**	**0.23**	**0.26**	**0.25**	**0.22**	**0.26**
Distribution Costs, Marketing Costs, and Profits	**0.15**	**0.16**	**0.17**	**0.15**	**0.17**	**0.17**

Phaseout of MTBE-Blended Gasoline

The early voluntary phaseout by industry of almost 70% of MTBE-blended reformulated gasoline in California went fairly well this year. Gasoline price spikes experienced during the spring and summer primarily resulted from crude oil price increases, as well as refinery and pipeline problems unrelated to the transition to ethanol-blended gasoline. The Energy Commission expects a relatively smooth phaseout of the remainder of MTBE-blended gasoline slated for early November. A recent Energy Commission survey of ethanol producers has concluded that adequate ethanol production capability exists to supply expected

market demand[7]. The Commission, however, remains concerned about the imminent phaseout of MTBE-blended gasoline in New York and Connecticut, especially as it will affect the switch to summer-grade gasoline specifications starting next spring.

The phaseout of MTBE in New York and Connecticut will decrease domestic production of federal reformulated gasoline. According to an Energy Information Administration (EIA) report, these states are already very dependent on foreign imports, and will see an even larger demand for imports of clean gasoline and blending components that possess low volatility properties[8]. But foreign refiners have not made the investments to produce the additional summer-grade gasoline suitable for blending with ethanol. As a result, the EIA has been unable to identify between 20 and 30 percent of the gasoline supply that will be needed next spring by these states, and has recommended that "enforcement discretion" be exercised to alleviate local supply problems.

Meanwhile, refineries in California will also be competing to obtain these same gasoline components. Staff expects that imports of gasoline and blending components into California will increase by between 20 and 40 thousand barrels per day during the summer of 2004. The Energy Commission has recommended that the state facilitate the port and terminal capacity increases needed to accommodate additional required imports. At the same time, California is also asking the U.S. Environmental Protection Agency to grant California an oxygenate waiver to give state refiners the flexibility to produce cleaner burning gasoline in the most cost-effective manner.

Petroleum Industry Information - Response to Information Requests

In our March 28 report to the Governor, the Energy Commission identified inadequacies in the scope of data currently collected from the industry and discussed the need to broaden our existing data-collection efforts. A more detailed and frequent level of data collection will improve the Energy Commission's ability to assess and respond to petroleum market issues.

To address the need for better data, the Energy Commission adopted an Order Instituting Rulemaking (Order No. 03-0219-08; Docket No. 03-SB1962-1) in February 2003. During the rulemaking process, Energy Commission staff will consult with petroleum industry representatives to develop new weekly, monthly and annual reporting requirements. These discussions will also include dealer tank wagon prices. The proposed regulations will be subject to public review and comment. We expect the rulemaking to be complete by early 2004.

As an interim measure, the Energy Commission and industry have been working cooperatively to develop data-reporting requirements that will be in effect until the

formal rulemaking is complete. The Energy Commission staff has developed interim weekly reporting forms and mailed them to industry, which has begun reporting the newly-required information.

Assembly Bill 1340 (Kehoe), Chapter 692, Statutes of 2003 will become effective on January 1, 2004. This statute restates existing Energy Commission authority under our PIIRA statutes. The statute expressly lists weekly reporting requirements that include, among other things, the regional average of invoiced retailer buying price. The statute further states that this is not intended to preclude or augment the current existing authority of the Energy Commission to collect additional data.

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[1] Unless otherwise stated, the U.S. Energy Information Administration (EIA) is the source of all gasoline and diesel price data used in this report.

[2] Production and inventory data for California used in this report are from the Energy Commission Petroleum Industry Information Reporting Act (PIIRA) data. Data for the U.S. and Petroleum Administration for Defense District 5 (PADD 5) region are from the U.S. Energy Information Administration. PADD 5 consists of California, Arizona, Nevada, Oregon, Washington, Alaska and Hawaii.

[3] The following data sources were used in preparing the tables 1 and 2; diesel and gasoline branded and unbranded rack prices are provided by OPIS, all retail prices are provided by EIA, and ANS crude oil prices are provided by the Wall Street Journal. Data for the current month include prices available at the time of preparation. Current calculations differ from prior reports by including both ethanol- and MTBE-based wholesale gasoline prices. The federal ethanol tax credit has been included in branded margin calculations. The majority of branded retailers are now selling ethanol-based gasoline, while most unbranded retailers are still selling MTBE-based gasoline.

[4] Most branded retail gasoline stations are operated by franchise dealers who must purchase their gasoline from a major branded refiner at the dealer tank wagon (DTW) price. DTW prices are determined by the branded refiners and include all delivery costs. Because the "Distribution and Marketing Costs" in the table below are derived from terminal rack prices and not DTW prices, an actual dealer margin, inclusive of costs and profits, cannot be inferred. Since the Energy Commission does not collect DTW prices, we cannot confirm the extent to which DTW prices differ from OPIS branded rack prices.

[5] "Refiner Costs and Profits" includes all non-crude oil costs associated with refining and terminal operation, crude oil processing, oxygenate additives, product shipment and storage, oil spill fees, depreciation, purchases of gasoline to cover refinery shortages, brand advertising, and profits. The component is calculated as the difference between the Oil Price Information Service (OPIS) average rack price of gasoline and crude oil cost.

[6] "Distribution Costs, Marketing Costs, and Profits" include: franchise fees, and/or rents, wages, utilities, supplies, equipment maintenance, environmental fees, licenses, permitting fees, credit card fees, insurance, depreciation, advertising, transportation and profits.

[7] *Ethanol Supply Outlook for California*, California Energy Commission Publication #600-03-017F, October 21, 2003. On line at: http://www.energy.ca.gov/reports/2003-10-21_600-03-017F.PDF

[8] *Preparations for Meeting New York and Connecticut MTBE Bans,* Office of Oil and Gas, U.S. Energy Information Administration, October 2003. On line at: http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/mtbebans/mtbebans.pdf